

Appl. No. 09/803,029
Amendment dated May 24, 2004
Reply to Office Action of February 20, 2004

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): An article of functional clothing, comprising:

a garment;
electrically conductive fibers integrated into the garment in a predetermined pattern to form an induction loop; and
an activator unit arranged at a predetermined location on the induction loop to close and thus activate the induction loop by connecting opposite ends of the induction loop, and to provide an interface to at least one portable electronic device.

Claim 2 (Original): The article of functional clothing as claimed in claim 1, wherein the garment corresponds to one of a jacket, a vest, a shirt and a pant.

Claim 3 (Original): The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers are sewed into the garment in the predetermined pattern to form the induction loop.

Claim 4 (Original): The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers correspond to conductive yarns

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which are either metallic coated yarns, yarns that incorporate non-conductive fibers with metallic fibers, or yarns that are showered with metallic fibers.

Claim 5 (Original): The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers each comprises a central metallic core composed of an electrically conductive material, and an insulative overcoat composed of an insulative material.

Claim 6 (Original): The article of functional clothing as claimed in claim 5, wherein the electrically conductive material contains one of a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material and any other fiber material that provides sufficient current to induce induction coupling between the garment and a hearing device.

Claim 7 (Original): The article of functional clothing as claimed in claim 1, wherein the electrically conductive fibers contain a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material or any other fiber material that provides sufficient current to create an electromagnetic field.

Claim 8 (Previous Presented): The article of functional clothing as claimed in claim 1, wherein the activator unit comprises a power source; a microphone; required processor electronics, and one or more interfaces which

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provide appropriate connection to close the induction loop and to the at least one portable electronic device, via either a wire/fiber transmission or a wireless transmission.

Claim 9 (Previously Presented): The article of functional clothing as claimed in claim 8, wherein the activator unit is a piece of jewelry, or a fastening device, such as a metallic button, a pin, a snap, a hook, and a zipper with conductive teeth for data/electric connection, arranged to close the induction loop.

Claim 10 (Previous Presented): The article of functional clothing as claimed in claim 1, wherein the garment includes a removable pocket which has required wire/fiber connectors utilized to establish connection between the activator unit and the at least one portable electronic device.

Claim 11 (Original): The article of functional clothing as claimed in claim 1, wherein the activator unit includes a zipper with conductive teeth for data/electric connection utilized to establish electrical connection between the conductive fibers forming the induction loop and to provide an interface to the at least one portable electronic device.

Claim 12 (Previous Presented): The article of functional clothing as claimed in claim 1, wherein the at least one portable electronic device includes a mobile phone, a pager, a personal digital assistant (PDA), a tape cassette player, a

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compact-disc (CD) player, a MD player, a DAT player, a mini-television set, a radio, a clock/alarm, or some other similar mobile devices.

Claim 13 (Currently Amended): A process of fabricating smart clothing, comprising:

integrating electrically conductive fibers into a garment in a predetermined pattern to form an induction loop; and

forming an activator unit at a predetermined location on the induction loop;
and

~~to close and thus activateactivating the induction loop, via the activator unit,~~
~~by establishing connection between opposite ends of the induction loop, and to~~
~~provideproviding an interface to at least one portable electronic device.~~

Claim 14 (Previous Presented): The process as claimed in claim 13, wherein the garment corresponds to one of a jacket, a vest, a shirt and a pant, and wherein the electrically conductive fibers are sewed into the garment in the predetermined pattern to form the induction loop.

Claim 15 (Original): The process as claimed in claim 13, wherein the electrically conductive fibers each comprises a central metallic core composed of an electrically conductive material, and an insulative overcoat composed of an insulative material.

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Claim 16 (Original): The process as claimed in claim 13, wherein the electrically conductive material contains one of a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material, showered pieces of metallic material and any other fiber material that provides sufficient current to induce induction coupling between the garment and a hearing device.

Claim 17 (Original): The process as claimed in claim 13, wherein the electrically conductive fibers contain a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material, pieces of metal material or any other fiber material that provides sufficient current to create an electromagnetic field.

Claim 18 (Previous Presented): The process as claimed in claim 13, wherein the activator unit comprises a power source; a microphone; required processor electronics, and one or more interfaces which provide appropriate connection to close the induction loop and to the at least one portable electronic device, via either a wire/fiber transmission or a wireless transmission.

Claim 19 (Previously Amended): The process as claimed in claim 13, wherein the activator unit is a piece of jewelry, or a fastening device, such as a metallic button, a pin, a snap, a hook, and a zipper with conductive teeth for data/electric connection, arranged to close the induction loop.

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Claim 20 (Original): The process as claimed in claim 13,
wherein the garment includes a removable pocket which has required fiber/wire
connectors utilized to establish connection between the activator unit and the at least
one portable electronic device.

Claim 21 (Previous Presented): The process as claimed in claim 13,
wherein the activator unit includes a zipper with conductive teeth for data/electric
connection utilized to establish electrical connection between the conductive fibers
forming the induction loop and to provide an interface to the at least one portable
electronic device.

Claim 22 (Original): The process as claimed in claim 13,
wherein the at least one portable electronic device includes a mobile phone, a pager,
a personal digital assistant (PDA), a tape cassette player, a compact-disc (CD)
player, a MD player, a DAT player, a mini-television set, a radio, a clock/alarm, or
some other similar mobile devices.

Claim 23 (Currently Amended): An article of functional clothing
comprising:
a garment having a conductive fiber integrated therein for forming an
induction loop; and
~~an activator unit arranged to close the induction loop and establish by~~
establishing electrical conduction between opposite ends of, via the induction loop,

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and to serve as an interface between the garment and at least one portable electronic device.

Claim 24 (Previous Presented): The article of functional clothing as claimed in claim 23, wherein the garment and the at least one portable electronic device are in electrical interface utilizing a wireless connection.

Claim 25 (Previous Presented): The article of functional clothing as claimed in claim 23, wherein the conductive fiber includes a central metallic core composed of a metallic material and an insulative overcoating composed of an insulative material.

Claim 26 (Original): The article of functional clothing as claimed in claim 25, wherein the metallic material includes at least one of copper, gold, steel, iron, nickel, cobalt, chromium, molybdenum, tungsten, tin, zinc, manganese, thallium, aluminum, and magnesium.

Claim 27 (Currently Amended): An apparatus, comprising:
an inductive coil for inductively coupling a hearing device to a garment having conductive fibers integrated therein for forming an induction loop;
a speaker for conveying a message from at least one portable electronic device to a user of the hearing device; and

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an activator unit for activating the induction loop by establishing a connection between opposite ends of the induction loop, and for establishing a connection between the at least one portable electronic device and the induction loop.

Claim 28 (Previous Presented): The apparatus as claimed in claim 27, wherein the conductive fibers correspond to conductive yarns that are metallic coated yarns, yarns that incorporate non-conductive fibers with metallic fibers, or yarns that are showered with metallic fibers.

Claim 29 (Previous Presented): The apparatus as claimed in claim 27, wherein the conductive fibers each comprises a central metallic core composed of an electrically conductive material, and an insulative overcoat composed of an insulative material.

Claim 30 (Previous Presented): The apparatus as claimed in claim 29, wherein the electrically conductive material contains one of a metallic material, a semi-metallic material, a semi-insulative material, a semi-conductive material, a transparent conductive material and any other fiber material that provides sufficient current to induce induction coupling between the garment and a hearing device.

Claim 31 (Previous Presented): The apparatus as claimed in claim 27, wherein the activator unit includes a zipper with conductive teeth for data/electric connection utilized to establish electrical connection between the conductive fibers

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forming the induction loop and to provide an interface to the at least one portable electronic device